

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Cotton Rat                                                                                                                                                                                                                                                                  |
| <b>Specificity</b>        | Detects cotton rat CXCL1/2/3/GRO in direct ELISAs and Western blots. In direct ELISAs, this antibody shows 5-20% cross-reactivity with recombinant rat CXCL1 and recombinant human CXCL2 and no cross-reactivity with recombinant cotton rat CXCL10, recombinant            |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 186413                                                                                                                                                                                                                            |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant cotton rat GRO<br>Ala28-Lys100<br>Accession # AAL16934                                                                                                                                                                                  |
| <b>Conjugate</b>          | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

|                       |                                                                        |
|-----------------------|------------------------------------------------------------------------|
| <b>Neutralization</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Western Blot</b>   | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Cotton rat growth-regulated protein (GRO) is a member of the ELR<sup>+</sup> CXC subfamily of chemokines (1). The cotton rat GRO cDNA encodes a 100 amino acid (aa) precursor protein with a 27 aa putative signal peptide and a 73 aa mature protein (2). Among the three human GRO proteins, mature cotton rat GRO is most closely related to CXCL1/GROα, sharing approximately 77% aa sequence identity (3). It also shares 75% and 70% aa sequence identity with mature human CXCL2/GROβ and CXCL3/GROγ, respectively (4). Compared with rat CXC chemokines, mature cotton rat shows 92%, 76%, and 76% aa sequence homology with rat KC/GRO/CINC-1, CINC-2, and CINC-3, respectively (5). Mature cotton rat CXCL1 also shares 74% sequence homology with mature cotton rat MIP-2 (6). Similarly to GRO proteins from other species, cotton rat CXCL1 is expected to be a potent neutrophil chemoattractant and activator. Cotton rat CXCL1 has been shown to bind and activate both mouse chemokine receptors CXCR1 and CXCR2 (7). Similarly to human CXCL1, the cotton rat CXCL1 concentration required to activate CXCR1 is at least an order of magnitude higher than that required to activate CXCR2 (7, 8). Based on studies on rodents, cotton rat CXCL1 is predicted to be produced by a wide variety of cell types including macrophages, endothelial cells, fibroblasts, astrocytes, neutrophils, keratinocytes, and intestinal epithelium (1, 9).

#### PRODUCT SPECIFIC NOTICES

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